DOCUMENT RESUME

ED 334 517 CG 023 534

AUTHOR Harrington, Thomas F.
TITLE Cross-Cultural Research with the Career Decision-Making System (CDM).
PUB DATE 22 Apr 91
NOTE 9p.; Paper presented at the Annual Convention of the American Association for Counseling and Development (Reno, NV, April 21-24, 1991).
PUB TYPE Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Career Counseling; Cultural Differences; *Decision Making; Elementary Secondary Education; School Counseling
IDENTIFIERS *Career Decisions; *Cross Cultural Counseling

ABSTRACT

The increased diversity of clients is a fact for most counselors. The Career Decision-Making System (CDM) reliably measured six interest inventory scales in the following countries and cultures: Asian, European, Pacific Basin, Canadian English- and French-speaking, and United States English- and Spanish-speaking. The six scales are: Crafts; Scientific; Arts; Social; Business; and Clerical. The CDM has always surveyed all students within a grade level, high ability as well as low achieving who often have reading problems. Validation data indicated educational systems removed many Crafts and Clerical type students from regular high school curricula; this can distort the response distributions to various survey question. It was also shown that the CDM had concurrent validity for vocational and technical students. While the occupational samples showed differences, they reflect substantial profile similarities among people doing comparable work in different countries. More commonality exists than diversity; the counselor's task is to understand better the rather limited differences and learn better to deal with these differences. (ABL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Cross-Cultural Research With The
Career Decision-Making System (CDM)

Thomas F. Harrington

presented on 4/22/91 at the American Association For Counseling and Development

ED334517

The increased diversity of our clients is a fact for most counselors. My role today is to show you what we have been doing with the CDM and to examine the CDM's appropriateness in handling this diversity. I will examine four areas: the scales, the survey questions, cross-cultural validity, and similarity of values between countries and cultures.

First, the CDM has been found to measure reliably six interest inventory scales in six countries and cultures studied: Asian, European, Pacific Basin, Canadian English- and French-speaking, and United States English- and Spanish-speaking. The six scales are: Crafts; Scientific; Arts, which includes the use of language; Social; Business, which includes leadership; and Clerical, which includes business operations. Reliabilities found were alpha coefficients of .90 and above. See Table 1 for the mean scores and their standard deviations. The interscale correlations and the construct validity of the scales for the countries mentioned also appear in the March 1991 Special Issue on Minorities of the Career Development Quarterly. By looking at the Japanese column in Table 1, a research development sample, you can see what samples have differences. For example, only the U.S. Crafts sample's mean is significantly different from the Japanese sample.

The second topic concerns individual survey questions. One part of the development of scales cross-culturally is for the authors to identify universal and familiar activities or jobs and be able to express them in common simple language. For example, to drive a long truck is universally more understandable than to drive a tractor trailer. Related to development of survey questions

CG023534

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Thomas F. Harrington

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

are the samples used to study responses to the questions. The CDM has always surveyed all students within a grade level, high ability as well as the low achieving who often have reading problems. In addition, the CDM authors have attempted to collect responses from all curricula within a grade or age range, for example, vocational and technical schools. The intent is to test out the instrument's applicability to a wide range of people. Table 2 reports validation data collected for various vocational and technical school programs. Stated in RIASEC terminology, note how many of the first letters of the CDM codes are R for Crafts and C for Clerical. Table 2 shows two things. First, educational systems remove many Crafts and Clerical type students from a regular high school curricula which can distort the response distributions to various survey questions. Second, the CDM has concurrent validity for vocational and technical school students. This should be encouraging for middle and junior high school counselors working with grade 8 students who opt for vocational schools. For comparison purposes Holland Dictionary of Occupational Codes are included in Table 2. Holland has stated that the Iachan Index is the most accurate technique to estimate the agreement between any pair of three-letter codes. In Table 2, 62 percent of the Iachan Indices showing congruence between CDM and DHOC codes are classified as being very close matches. These are the indices of 26 through 28. Thirty-three percent are classified as reasonably close matches. These are the indices between 21 and 24.

Let me return to Table 1 - the Australian column. These data reflect an educational structure which operates a separate system for technical education. Technical students were excluded from this Australian sample and this accounts for the Crafts and Clerical mean scores being low.

The CDM U.S. English Edition has a representative sample of school students. Foreign editions are not literal English translations. Thus, the data presented in Table 1 do not use exactly worded surveys and have varied sample populations.

The third topic concerns concurrent validity and the similarity of job functions from one culture to another. The first question was: do people in the U.S. and Australia employed in similar jobs have similar interest profiles, i.e., engineers, teachers, etc. While the occupational samples in Table 3 show differences, they reflect substantial profile similarities among people doing comparable work in different countries. The Iachan Index for the jobs listed in Table 3 all are interpreted as having very close matches with indices of 26 through 28.

The second question was whether the interests of students in vocational, technical, and college curricula in different countries vary substantially within the same curriculum.
Table 4 shows student profiles in curricula related to the employed workers that were shown in Table 3. Eighty-six percent of those in similar study programs had very close profiles, as measured by their Iachan / indices of 26 through 28. Fourteen percent had reasonably close matches with scores between 21 and 25. As more and more students come to the U.S to study, this information may be useful knowing that these students have a valid perception of varying curricula.

The fourth topic follows Super's theory that values are the sources of interests. The CDM value data in Table 5 show that a high degree of commonality exists between cultures.

I started out by saying that counselors are working with a more diverse population than they did previously. My presentation has attempted to show that the authors have been examining whether the CDM will accommodate some of the changes happening to counselors. My conclusion is that more commonality exists than diversity. Our task is to understand better the rather limited differences and learn better to deal with these differences.

Table 1

Patterns of Significant Differences Between Japanese and Other Samples

		United States	U.S. Spanish	Canadian English	Canadian French	Australian	Japanese
		N = 5,646	N = 267	N = 803	N = 342	N = 899	N = 144
Crafts	M	15.6$_a$	12.1	11.2	13.3	7.5	10.0$_a$
	SD	11.4	8.9	10.2	10.7	8.4	8.6
Scientific	M	12.3	16.1$_a$	13.8$_a$	13.6$_a$	12.7	9.8$_a$
	SD	11.2	11.3	11.8	11.2	11.2	8.3
The Arts	M	12.2$_a$	16.2	13.6$_a$	9.9$_a$	12.8$_a$	17.7$_a$
	SD	10.2	10.8	11.1	8.7	10.5	9.5
Social	M	15.1	13.8	17.6	15.4	14.9	15.2$_a$
	SD	10.7	10.8	11.3	9.9	10.2	8.5
Business	M	14.8	16.0	14.5	12.6	15.5	15.6$_a$
	SD	9.8	10.5	9.7	7.9	9.8	8.8
Clerical	M	14.3	14.9	13.7	15.1	11.1$_a$	16.3$_a$
	SD	11.4	11.7	11.2	10.1	9.8	8.8

The subscript $_a$ reports means that are significantly different at the .05 level from the underlined Japanese sample as determined by the Scheffé test.

Copyright 1991 by Career Planning Associates, Inc.

Table 2

CDM Codes and Holland-Assigned Codes For Students In Selected Vocational and Technical School Programs

Program	N	Average CDM Code[a]	Related Holland Dictionary of Occupational Code[a]	Iachan Congruence Index
Accounting	46	CES	CES Cost Accountant	28
Air Conditioning/ Heating	39	RES	RES Air-Conditioning Mechanic	28
Auto Body Repair	52	RES	RES Automobile-Body-Repairer Helper	28
Automotive Technology	58	REI	RIE Automotive-Maintenance-Equipment Servicer	26
Carpentry	57	REA	REI Carpenter Apprentice	27
Commercial Art	47	AES	AES Industrial Designer	28
Computer Operation	41	CES	CSR Computer Operator	24
Cosmetology	47	SAE	SEA Cosmetologist	26
Culinary Arts	53	ESA	RSE Cook Apprentice; RAS Pastry Cook; ESR Food Service Manager	27
Electricity	55	REI	REI Electrician Apprentice	28
Electronics	41	RIE	RIE Electronic Sales-and-Service Technician	28
Health Assisting	58	SIC	SAI Dental Assistant; SCR Medical Assistant	24
Jewelry-Silversmith	24	RAE	REC Jeweler Apprentice	24
Masonry/Bricklaying	44	REA	RIE Bricklayer Apprentice	24
Metal Trades	42	REI	RIE Welder-Fitter Apprentice	26
Photography	68	ASR	AES Photographer Apprentice	24
Plumbing	41	REA	REI Plumber Apprentice	27
Printing	58	REA	RIE Printer	24
Restaurant Hospitality	38	AES	ESA Waiter/Waitress, Formal	16
Secretarial Studies	57	CSE	CSE Secretary	28
Skilled Trades	60	RIS	-	
Word Processing	25	CSE	CRE Word-Processing-Machine Operator	23

[a]Explanation of Codes (CDM equivalent in parentheses)
R=Realistic (Crafts) S=Social (Social)
I=Investigative (Scientific) E=Enterprising (Business)
A=Artistic (The Arts) C=Conventional (Clerical

Table 3

A Comparison of Average CDM Codes For Workers From Two Different Countries

Jobs	United States	Australia	Iachan Congruence Index
Airline Flight Attendant	SAE	SAI	27
Counselor	SAE	SAE	28
Editor	ASI	AIS	26
Electrical Engineer	IRE	IRE	28
Electronic Technician	RIE	RIS	27
Manager	ESC	ESC	28
Teacher	SAE	SAE	28
Clerk	CSE	CSI	27

Table 4

A Comparison of United States and Australian Samples In Similarly Named Majors

Study Program	United States CDM Code	Australian CDM Code	Iachan Congruence Index
Accounting	CSE	CES	26
Auto Body Repair	REA	RES	27
Journalism	ASE	ASE	28
Music	ASI	ASI	28
Nursing	SIE	SIA	27
Pharmacy	ISE	ISE	28
Photography	ASR	ARI	24
Physical Education/ Athletic Training	SIA	SIA	28
Primary Education	SAE	SAE	28
Printing	REA	REA	28
Secretarial	CSA	CSE	27
Social Work	SAE	SAE	28
Speech and Hearing	SAI	SAI	28
Theatre/Drama	ASE	SAE	21

Table 5

Most to Least Popular Values of School Students

Canada (N=2,113)	Australia (N=2,157)	U.S. (N=9,650)	U.S. Spanish (N=571)	Japan (N=144)	Finland (N=302)
good salary	good salary	good salary	good salary	variety-diversion	variety-diversion
job security	job security	job security	job security	job security	good salary
variety-diversion	variety-diversion	variety-diversion	prestige	creativity	job security
working with people	high achievement	working with people	working with people	good salary	working with people
high achievement	working with people	high achievement	variety-diversion	working with people	independence
independence	creativity	independence	high achievement	working with mind	creativity
creativity	independence	working with hands	creativity	high achievement	working with mind
prestige	working with mind	prestige	independence	prestige	prestige
working with mind	prestige	creativity	leadership	independence	high achievement
working with hands	leadership	working with mind	working with mind	working with hands	leadership
physical activity	physical activity	physical activity	working with hands	physical activity	physical activity
leadership	working with hands	leadership	physical activity	leadership	working with hands
routine work	routine work	routine work	routine work	routine work	routine work
supervised work	supervised work	supervised work	supervised work	supervised work	supervised work